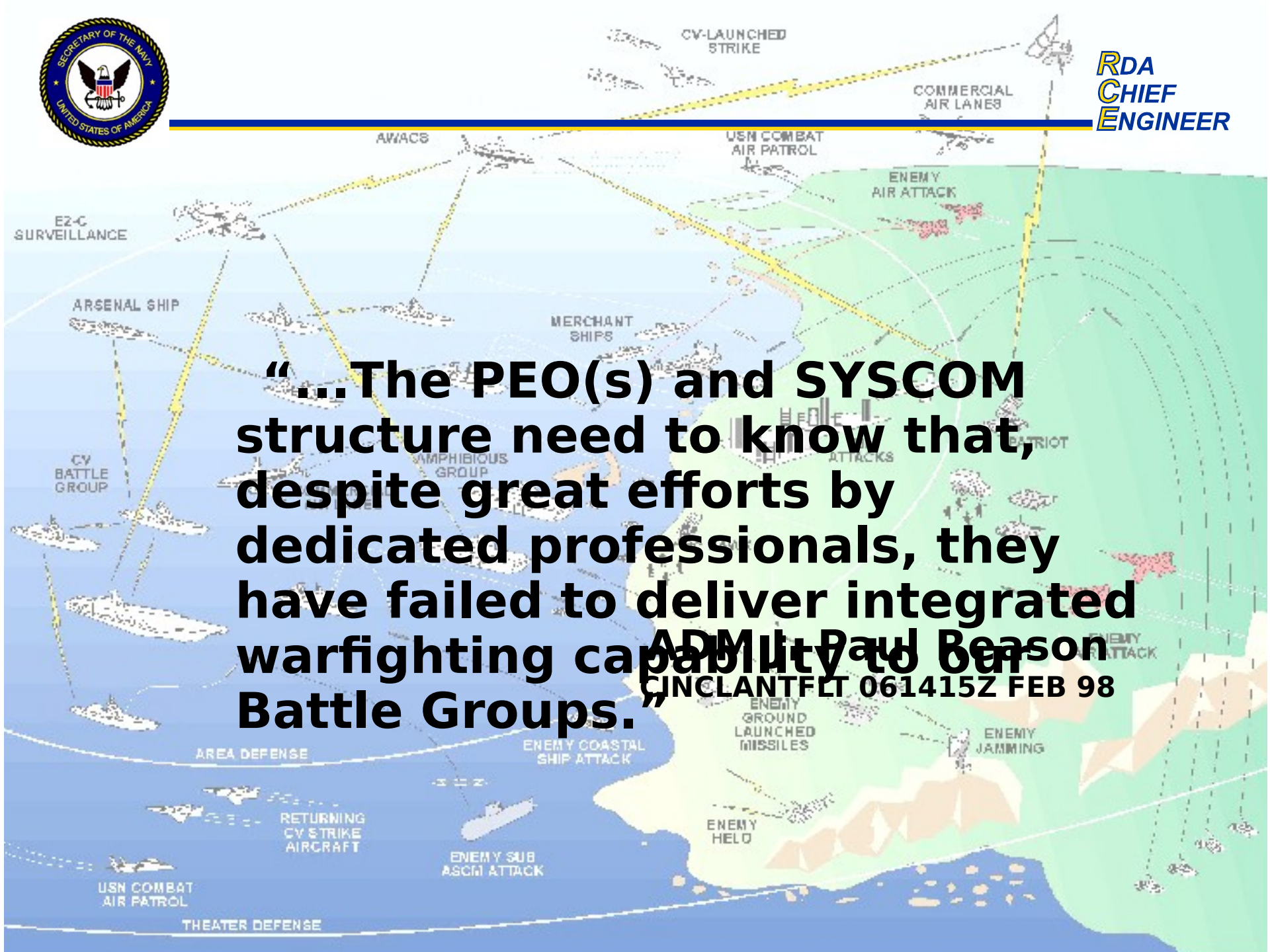
RDA CHENG
Risk Advisory Board Role

10 January 2001

Standards, Policies & Guidelines Directorate (SPG)
Ron Dostie



"...The PEO(s) and SYSCOM structure need to know that, despite great efforts by dedicated professionals, they have failed to deliver integrated warfighting capability to our Battle Groups."

ADM J. Paul Reason
CINCLANTFLT 061415Z FEB 98

RDA CHENG Establishment

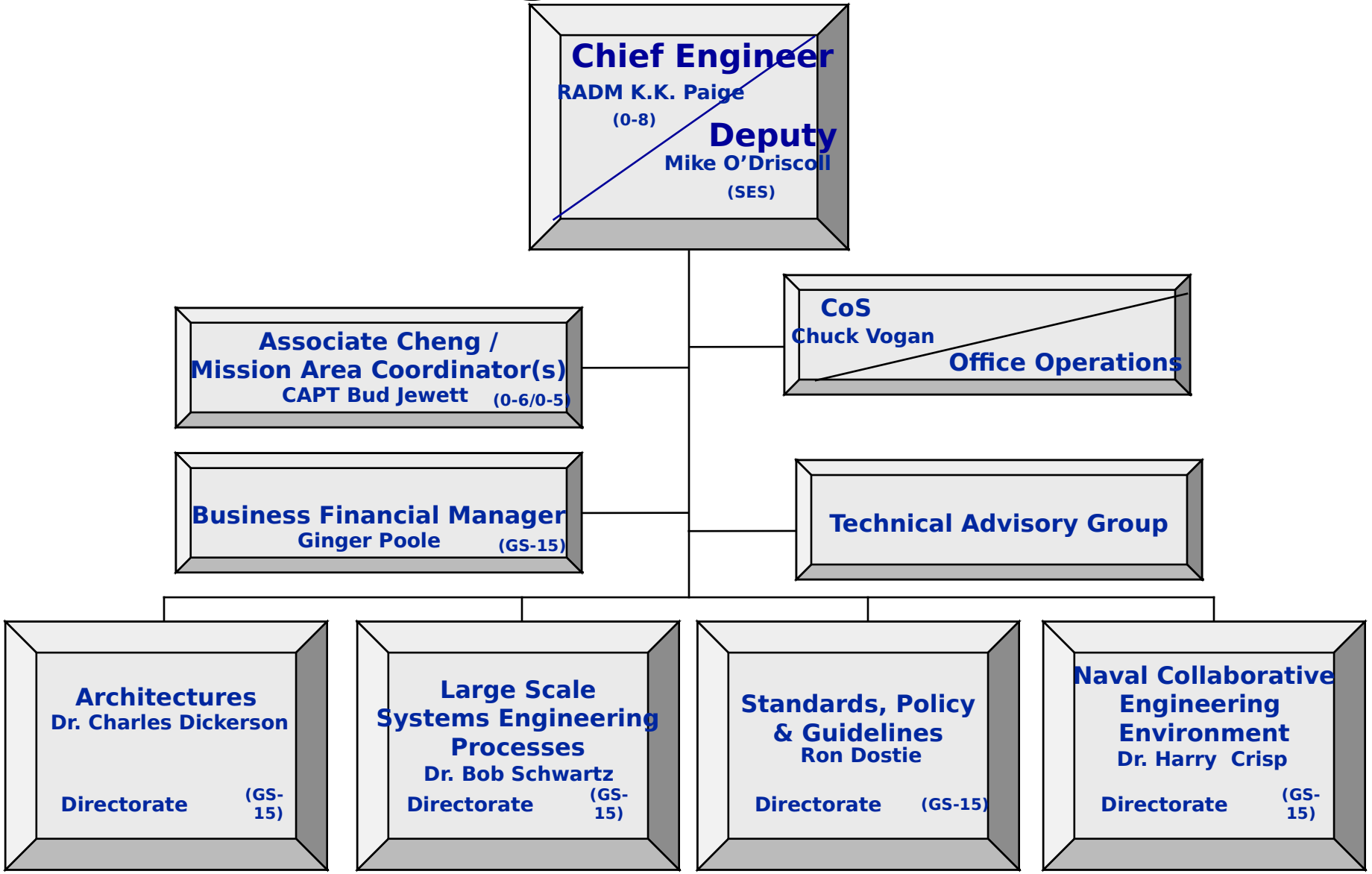
RDA CHIEF ENGINEER

- **The Naval Service Does Not *"…Engineer and Implement Component Systems to Operate Coherently With Other Systems as Part of a Larger Force…"***
- **The Fundamental Reason is That *"…A Process to Assure (This Outcome) Does Not Exist in the ASN (RDA)…"***
- **RDA Chief Engineer Designated as Senior Technical Authority Within the Acquisition Structure**
  - **For the Overall Architecture, Integration and Interoperability of Current and Future Combat, Weapons and C4I Systems Used by the Department of the Navy**

ASN (RDA) Memo dtd April 13, 1999

RDA CHENG Core Organization

RDA CHIEF ENGINEER



Directorate

- **Establish CHENG role in Interoperability and Integration (I&I):**
  - **Coordinate, establish, Naval positions**
  - **Develop, coordinate, promulgate RDA CHENG policies**
  - **Review, comment on policies from outside organizations**
  - **Provide Naval leadership, coordination for selected critical standards**

A Clearinghouse for Naval Integration and Interoperability Issues

RDA CHENG Risk Advisory Process Role

RDA CHIEF ENGINEER

- **Risk Advisory Boards (RABs) required by ASN RDA for all acquisition programs in support of:**
  - **Milestone / program reviews, metrics reviews**
- **CHENG participation in RAB Process for selected programs:**
  - **Assessment, risk recommendation regarding Interoperability and Integration (I&I)**
  - **As part of PM's existing RAB process**
- **Early warning system for PEOs / program managers in communicating risk from one program / system to interfacing programs / systems**

Status

RDA CHIEF ENGINEER

- **RDA CHENG RAB Process ltr of 22 Sep 00**
  - **Announced CHENG participation in RAB process to PEO TSC and other PEOs / SYSCOMS**
  - **Identified PEO TSC programs to be reviewed as part of Jan 01 RDA Metrics review**
    - ★ **11 programs reviewed, varying levels of involvement**
  - **Will expand number of programs to be reviewed to include those from other SYSCOMs / PEOs**

Program Risk Assessment

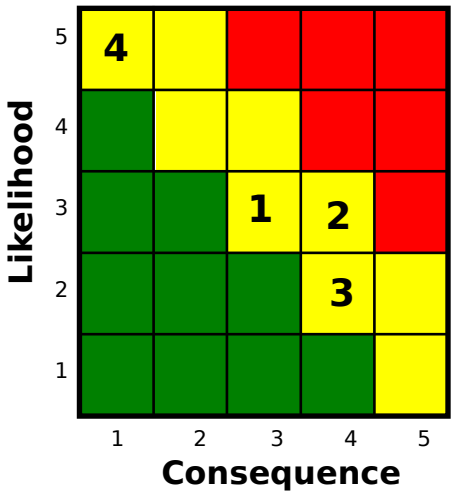
CAPT D. O. Goode, PMS-499 **Date of Review: 29 JUN 00**

System A

ACAT IC

Nov	May
	1
	2
	3

Low Risk
Medium Risk
High Risk



Risk Advisory Board

CAPT D. O. Goode, PMS499
Mr. D.E.E. Deputy, PMS499B
Dr. T. Risk, PMS499R
Mr. N. Lab, NSWC/DD
Mr. T. Bone, U.S. Prime
Dr. A.W. Shucks, RDA CHENG

Risk #1:
- **Vendor base deterioration/ obsolete parts issues due to low annual procurement quantities continue to impact production line builds.**
- **Execute life of type buys, qualify new vendors and/or redesign parts/circuits**
- **$2-$5M per year**

Risk #2:
- **Inadequate test set assets have potential for impacting production throughput.**
- **Procure spare parts to increase test set availability**
- **$1M**

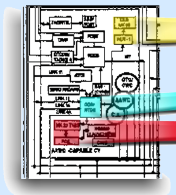
Risk #3:
- **Delayed production deliveries due to process control issues**
- **Cable routing rework on six units. Anticipate one month slip in delivery schedule (to JUN 00).**
- **Rework cost TBD**

Risk #4:
- **Level 2 integration testing with System B delayed 4 months due to high number of TRs uncovered during unit test.**

System C
- **Large number of false tracks uncovered in Level 1 integration testing still unresolved.**
- **FY00 budget decision on System C may delay Level 2 integration testing until FY01.**
- **Rebaseling cost: Big $$**

RDA CHENG Risk Assessment Process

RDA CHIEF ENGINEER



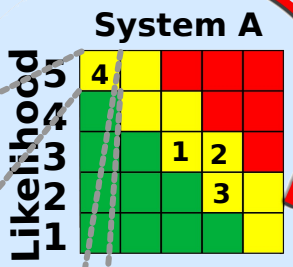
System Architecture

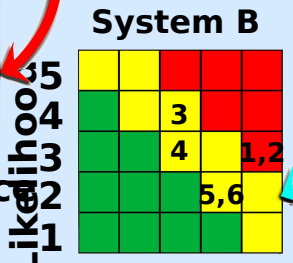
MS A / B System A MS C

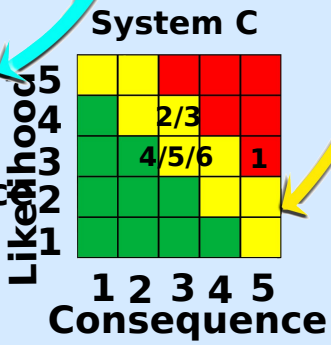
MS A / B System B MS C

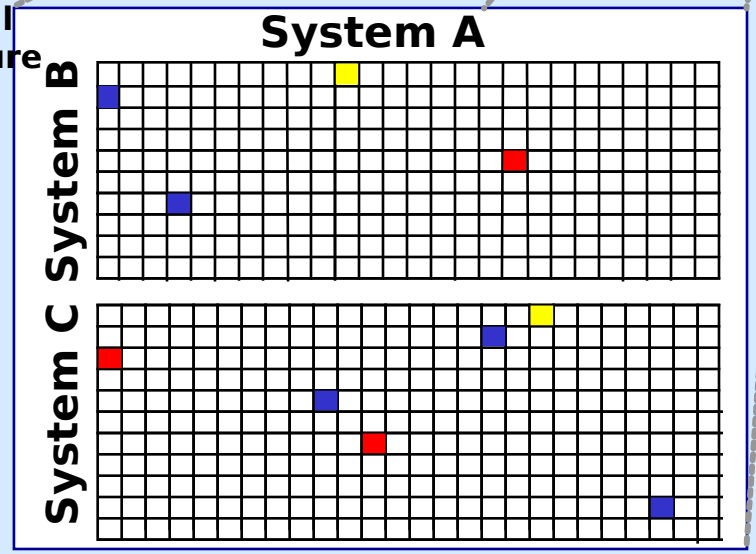
MS A / B System C MS C

Technical Architecture









Low Risk Medium Risk High Risk

TRIMS RISK TOOL

RDA CHIEF ENGINEER

- **Technical Risk Identification and Mitigation Systems (TRIMS)**
  - **Automated, web based, risk tool**
  - **Required for use in PEO TSC program assessments**
- **Best Manufacturing Processes (BMP) organization tasked and funded to modify TRIMS to support I&I risk assessments**
  - ★ **Alpha module developed; final available late FY 01**
- **RDA CHENG team established, tasked and funded to develop I&I knowledge base for TRIMS**
  - ★ **DRAFT categories, templates and questions available**

Integration and Interoperability Risk Categories

RDA CHIEF ENGINEER

- Inter-programmatic Alignment
- Physical Integration
- Electromagnetic
- Data Communications
- Interoperation
- Computing architecture
- Human Systems Integration
- COTS / NDI
- Standards and policies
- Integration Testing

CHENG RAB Process Expansion (DRAFT)

RDA CHIEF ENGINEER

- AIEWS (PEO TSC)
- AREA TBMD (PEO TSC)
- CEC (PEO TSC)
- NTW TBMD (PEO TSC)
- SSDS MK 2 (PEO TSC)
- AEGIS WS (PEO TSC)
- AADC (PEO TSC)
- Tactical Tomahawk/TTWCS
- GCCS-M (SPAWAR)
- NAVSSI (SPAWAR)
- C2P (SPAWAR)
- E-2 C MCU (NAVAIR)
- CAC2S (MARCOR)
- Naval Fires Network (NFN)*

Selected programs critical to I&I for TAMD, C4ISR and Time Critical Strike